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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,928	12/31/2001	James M. Doherty	T00362; AT1-142	5904
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EXAMINER				
CHANKONG, DOHIM				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/029,928

Applicant(s)

DOHERTY, JAMES M.

Examiner

DOHM CHANKONG

Art Unit

2452

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This final rejection is in response to Applicant's amendment filed on 1/13/2010.

Applicant has previously cancelled claims 1-28 and amends claims 29, 36, and 43. Accordingly, claims 29-43 are presented for further examination.

I. RESPONSE TO ARGUMENTS

Applicant amends independent claims 29, 36, and 43 to recite "said optimal level may not correspond to an optimal performance if the optimal performance requires a higher economic setpoint." Applicant argues that the new limitation overcomes the cited *Hergert* reference because *Hergert* discloses optimization at the lowest price for the optimized irrigation. Applicant's argument is not persuasive for the following reasons.

The examiner disagrees with Applicant's characterization of *Hergert*'s teachings. Contrary to Applicant's characterization, *Hergert* discloses calculating the water requirements for optimal performance [column 7 «lines 62-65»], calculating the available power from the power generating facility [column 7 «line 66» to column 8 «line 10»], and then adjusting the required period of operation based on the calculated considerations [column 8 «lines 22-26»], which presumably include the power available to the system.

Because the optimal requirements are adjusted, it is clear that *Hergert*'s optimized water schedule would not lead to optimal performance but is constrained by power available to the irrigation system. Since the water schedule is adjusted based on available power, the optimal performance would require a higher economic setpoint (more power to the irrigation system).

Additionally, *Hergert* discloses finding an optimal irrigation schedule based on a fixed electrical costs [column 8 «lines 27-43»]. Specifically, *Hergert* discloses that the water schedule is optimized based on the cost of available electricity and not simply the lowest price for the optimal irrigation.

Based on the foregoing, Applicant's argument is not persuasive and the new limitation does not overcome the cited references. The rejection set forth in the previous action is therefore maintained.

II. CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- A. Claims 29-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Petite et al.* (U.S. Patent Number 6,437,692), hereinafter referred to as *Petite*, in view of *Mecham et al.* (U.S. Patent Number 6,314,340), hereinafter referred to as *Mecham*, in further view of *Hergert*, U.S. Patent No. 6,108,590.**

Petite disclosed a system for monitoring and controlling remote devices wherein the remote devices may be sensors that communicate wirelessly with a local gateway via transceivers. In an analogous art, *Mecham* disclosed an irrigation controller that collects and utilizes environmental data.

All citations in the following mapping refer to *Petite* unless otherwise noted. Some claims will be discussed together. Those claims which are essentially the same except that they

set forth the claimed invention as a control server or an article of manufacture are rejected under the same rationale applied to the described claim.

Claims 29, 36, and 43

Petite as modified by *Mecham* and *Hergert* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network (*Petite*, local gateway 210 and column 17, lines 35-42), said residential gateway connecting at least one residential device over said in-home network, the residential gateway:

forwarding state information of said at least one residential device to a control server over said WAN (*Petite*, column 12, lines 24-40);

forwarding economic setpoint information to said control server over said WAN (*Petite*, column 13, lines 19-30), said economic setpoint information being a cost below which the cost of operation of the residential device must stay (*Mecham*, column 18 «lines 60-62»);

receiving control parameters from said control server over said WAN (*Petite*, column 6, lines 15-30), said control parameters determined by the control server based on at least the following information: relevant control information accessed from one or more climatic information providing servers on said WAN (*Mecham*, column 1, lines 43-48), said forwarded state information of said at least one residential device (*Petite*, column 14, line 51 through column 15, line 1) and said forwarded economic setpoint information (*Petite*, column 13, lines 8-30), wherein the control server determines the control parameters based upon an optimal level for the control parameters that remains within the economic setpoint, wherein said optimal level may not correspond to an optimal performance if the optimal performance requires a higher economic setpoint (see response to arguments above, *Hergert*, column 2 «lines 54-67»:

controlling irrigation requirements in accordance with predetermined constraints | column 3 «line 46» to column 4 «line 25»: optimizing control parameters such as irrigation requirements within an economic limit | column 7 «line 66» to column 8 «line 26»).

whereby said residential gateway controls said at least one residential device based on said received control parameters (*Petite*, column 13, lines 19-23).

Petite did not explicitly disclose: (1) information accessed from a climatic information providing server; (2) said economic setpoint information being a cost below which the cost of operation of the residential device must stay; and (3) wherein the control server determines the control parameters based upon an optimal level for the control parameters that remains within the economic setpoint, wherein said optimal level may not correspond to an optimal performance if the optimal performance requires a higher economic setpoint. However, all three features were well known in the art at the time of Applicant's invention as evidenced by *Mecham* and *Hergert*.

Mecham discloses the first and second limitations. As indicated in the foregoing mapping, *Mecham* discloses the use of weather station servers to provide climatic information. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of *Petite* by adding the ability to utilize information accessed from a climatic information providing server as provided by *Mecham*. Here the combination satisfies the need for advanced monitoring and control system solutions in distributed systems. See *Petite*, column 2, lines 28-30.

Mecham also discloses that said economic setpoint information being a cost below which the cost of operation of the residential device must stay. It would have been obvious to one of ordinary skill in the art to have modified *Petite* to include the setpoint features taught by

Mecham. Such a modification to *Petite* is an example of using a known technique (*Mecham*'s economic setpoint feature) to improve similar systems (*Petite*'s remote monitoring and controlling system) in the same way (*Petite* improved to include a feature to keep water and electrical usage within a budget). *See MPEP § 2143*.

Finally, *Hergert* discloses the third limitation where a control server determines the control parameters based upon an optimal level within the economic setpoint and where the optimal level may not correspond to an optimal performance if the optimal performance requires a higher economic setpoint. It would have been obvious to one of ordinary skill in the art to have modified *Petite* to include the irrigation optimization functionality taught by *Hergert*.

Such a modification to *Petite* is an example of using a known technique (*Hergert*'s optimizing control parameters within a economic limit) to improve similar systems (*Petite*'s remote monitoring and controlling system) in the same way (*Petite* improved to include a feature optimize water schedules within economic limits). *See MPEP § 2143*.

Claims 30 and 37

Petite as modified by *Mecham* and *Hergert* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said at least one residential device is a home irrigation system (*Petite*, figure 8) comprising: an irrigation controller connected to said residential gateway (*Petite*, figure 8, item 814); and at least one sprinkler connected to said irrigation controller (*Petite*, figure 8, item 817).

Claims 31 and 38

Petite as modified by *Mecham* and *Hergert* discloses a residential gateway that connects

a Wide Area Network (WAN) to an in-home network, as per claim 30, wherein a watering cycle constitutes said control parameters for said home irrigation system (*Petite*, column 13, lines 19-23).

Claims 32 and 39

Petite as modified by *Mecham* and *Hergert* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 31, wherein said watering cycle is also determined based on said economic point information (*Petite*, column 13, lines 23-30).

Claims 33 and 40

Petite as modified by *Mecham* and *Hergert* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said economic setpoint information is set to control amount of electricity or water used by said at least one residential device during a particular time period (*Petite*, column 13, lines 23-30).

Claims 34 and 41

Petite as modified by *Mecham* and *Hergert* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 30, wherein said irrigation controller is connected to said residential gateway via an IEEE 802.11b wireless interface (obviousness as discussed above in paragraph 14).

Concerning claims 34 and 41, *Petite* did not explicitly state the use of an IEEE 802.11b wireless interface. *Petite* does however state a wireless interface between the residential device and the residential gateway. See column 2, lines 54-62. Also, the IEEE 802.11b standard for wireless communications was well known in the art at the time of the applicant's invention so it

would be a clear extension of *Petite*'s system to use this standard for his wireless communications since his system already includes a wireless interface. Thus, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of *Petite* by adding the ability to use an IEEE 802.11b wireless interface.

Claims 35 and 42

Petite as modified by *Mecham* and *Hergert* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said Wide Area Network is the Internet (*Petite*, WAN 230).

III. CONCLUSION

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOHM CHANKONG whose telephone number is (571)272-3942. The examiner can normally be reached on Monday to Friday [10 am - 6 pm].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on (571)272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DOHM CHANKONG/
Primary Examiner, Art Unit 2452